

What is claimed is:

1. A method for isolating a hybrid device in an image sensor including a photodiode, the method comprising the
5 steps of:

forming sequentially a pad oxide layer and a pad nitride layer on a substrate and selectively removing the pad oxide layer and the pad nitride layer to expose a surface of the substrate in which a field insulation layer
10 will be formed;

forming the field insulation layer by performing a channel stop ion-implantation process to the exposed substrate with use of the pad nitride layer as a mask;

removing a partial portion of the pad nitride layer so
15 that one side of the pad nitride layer is spaced out with a predetermined distance from an edge of the field insulation layer; and

performing an additional ion-implantation process onto the exposed substrate surface and the field insulation
20 layer by using the pad nitride layer as a mask.

2. The method as recited in claim 1, wherein, at the step of removing the portion of the pad nitride layer is performed in a manner that the pad nitride layer is spaced
25 out with the predetermined distance from the edge of the field insulation layer, the predetermined distance ranges from about 0.5 μm to about 1.0 μm .

3. The method as recited in claim 1, wherein the ion-implantation process is performed with use of boron.

4. The method as recited in claim 3, wherein the
5 boron ion-implantation process is proceeded by employing
ion-implantation energy of about 30 keV and dose amounts of
boron in a range between about $4.0 \times 10^{13} \text{ cm}^{-3}$ to about $5.0 \times 10^{13} \text{ cm}^{-3}$.

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